WA-Trans Partner Meeting

March 23, 2006

Tami Griffin

WA-Trans Project Manager

Washington State Department of Transportation

New WA-Trans Staff

- Michael Leierer hired as Assistant Project Manager/Technical Lead in:
  - Developing the WA-Trans side of the translator and providing support for translation during the Puget Sound Pilot,
  - Providing project management (with support from Tami) for the Transportation Pooled Fund Pilot (now called the "One Road Pilot"),
  - Testing the databases and providing technical support for any software development processes.

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New WA-Trans Staff

- Ken Stallcup is a part-time technical writer responsible for:
  - Documenting detailed business cases for the WA-Trans Return on Investment Study,
  - Developing help files on the translation process to be available through RoboHelp on-line,
  - Documenting manual processes to provide consistency between pilots and support for requirements documentation for software development of manual processes.

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New WA-Trans Staff

- A new GIS Analyst position has been funded and will be hired within the next couple of months responsible for:
  - Developing (and supporting implementation of) processes to get WSDOT data into WA-Trans,
  - Providing GIS expertise in processes to be automated during the One Road Pilot (such as integration processes),
  - Providing consistency in GIS processes across all WA-Trans pilots and activities,
 - Working in support of local governments providing data to WA-Trans.

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New Partners

- Mason County has "re-engaged" and is interested in participating again,
- The Swinomish Tribe has expressed interest in participating.

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Steering Committee Activities
## (Policies and Processes)

- Data Update Cycles and Notification Policy
  - Desirable targets are part of the WA-Trans Standards,
  - Based on data sharing agreements,
  - Documented in metadata,
  - Notification through WA-Trans Data Provider Website and e-mails.
- Archival and Retrieval Policy
  - A snapshot of the data will be archived annually and will be available,
  - Historical data will be available through queries of WA-Trans on an ad-hoc basis.

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Steering Committee Activities
(Policies and Processes)
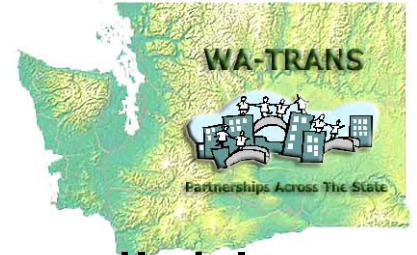
- Road Classification Crosswalks will be available for a variety of classification systems to support various potential users. These include:
  - Federal Functional Classification,
  - State Function Classification,
  - Metropolitan Transportation System,
  - Bureau of Indian Affairs Functional Classification,
  - Freight and Goods Classifications,
  - Census Classifications (it is anticipated that these will be the classifications for The National Map.

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Steering Committee Activities
## (Policies and Processes)
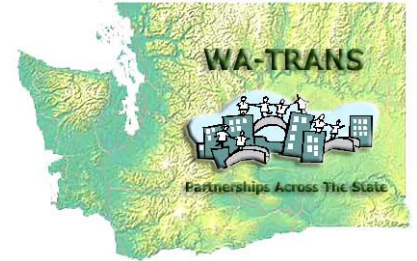
- Issues regarding jurisdictions with no data:
  - How to acquire data and pick the best sources?
  - How do we provide incentive and what is the best political process to facilitate getting a jurisdiction to begin and continue with GIS?
  - What are the barriers, or issues with using the new Census data for a first version of the data?

- We will be doing a pilot for a jurisdiction (at least one) with no data.
  - How to we select which jurisdiction(s)?
  - How do we make sure they continue to maintain the data?
  - How do we fund this?

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Steering Committee Activities
(Policies and Processes)

- We will be working with Tim Young to explore the replacement of the Framework Management Group with the Enterprise Architecture and how this impacts WA-Trans as it is underway,

- We are particularly concerned with the maintenance and accuracy of the state boundary layer (regarding agreement points),

- We need to make sure that our investment is consistent with what is decided for EA (and vise versa) so we don't have to rework decisions that have been collaboratively reached.

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WA-Trans Conceptual Architecture
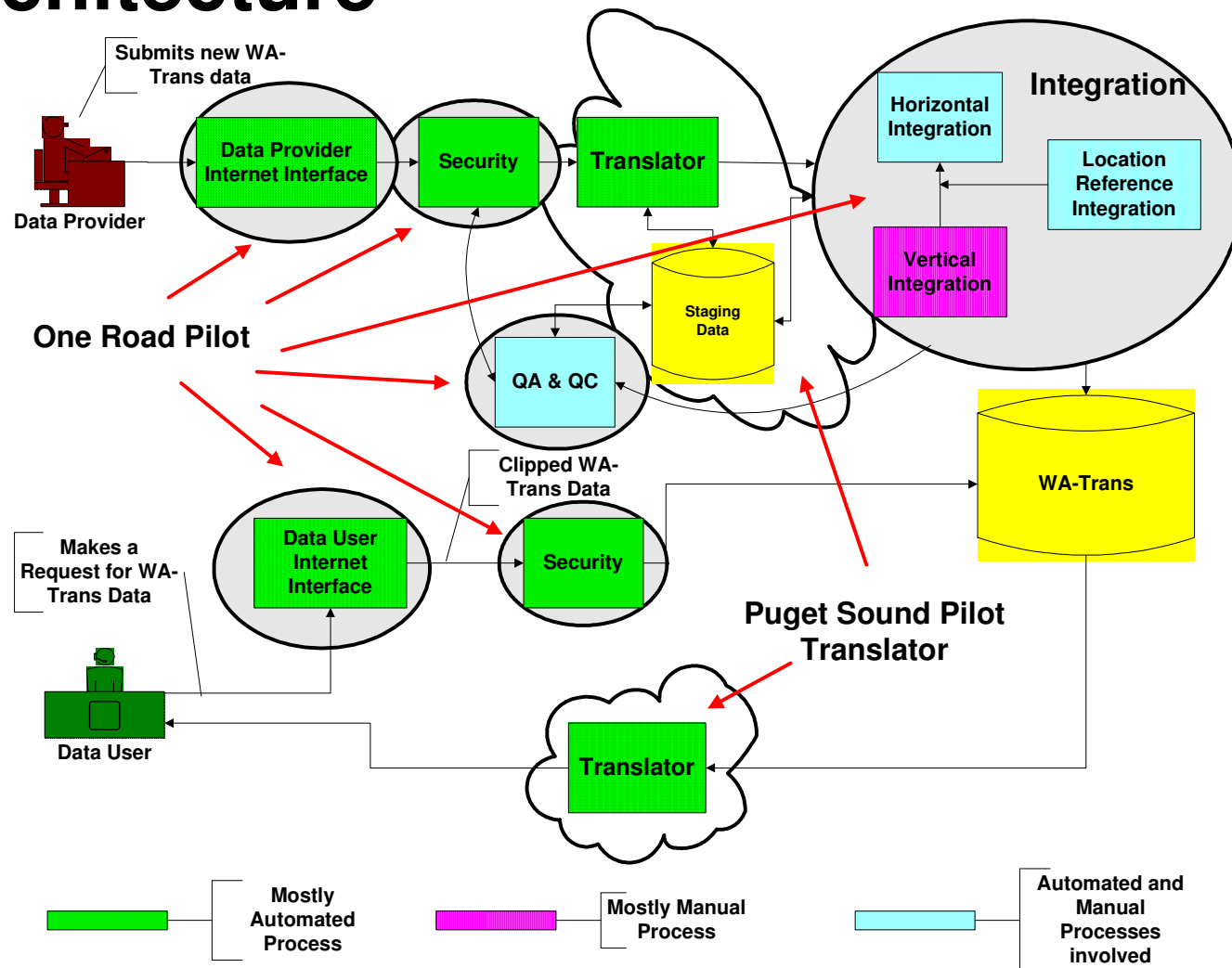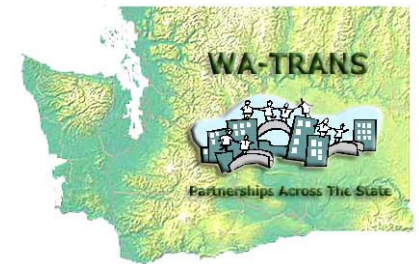
New Business Rule for Standards

- The concept of first order and second order points has been clarified and further refined within a specific mode.

- First order points occur where segments are broken.

- Second order points can be used at-grade, non-road crossings and for public/private at-grade intersections.

- Second order points need not break segments. This avoids over segmentation while allowing the use of these points for a variety of purposes.

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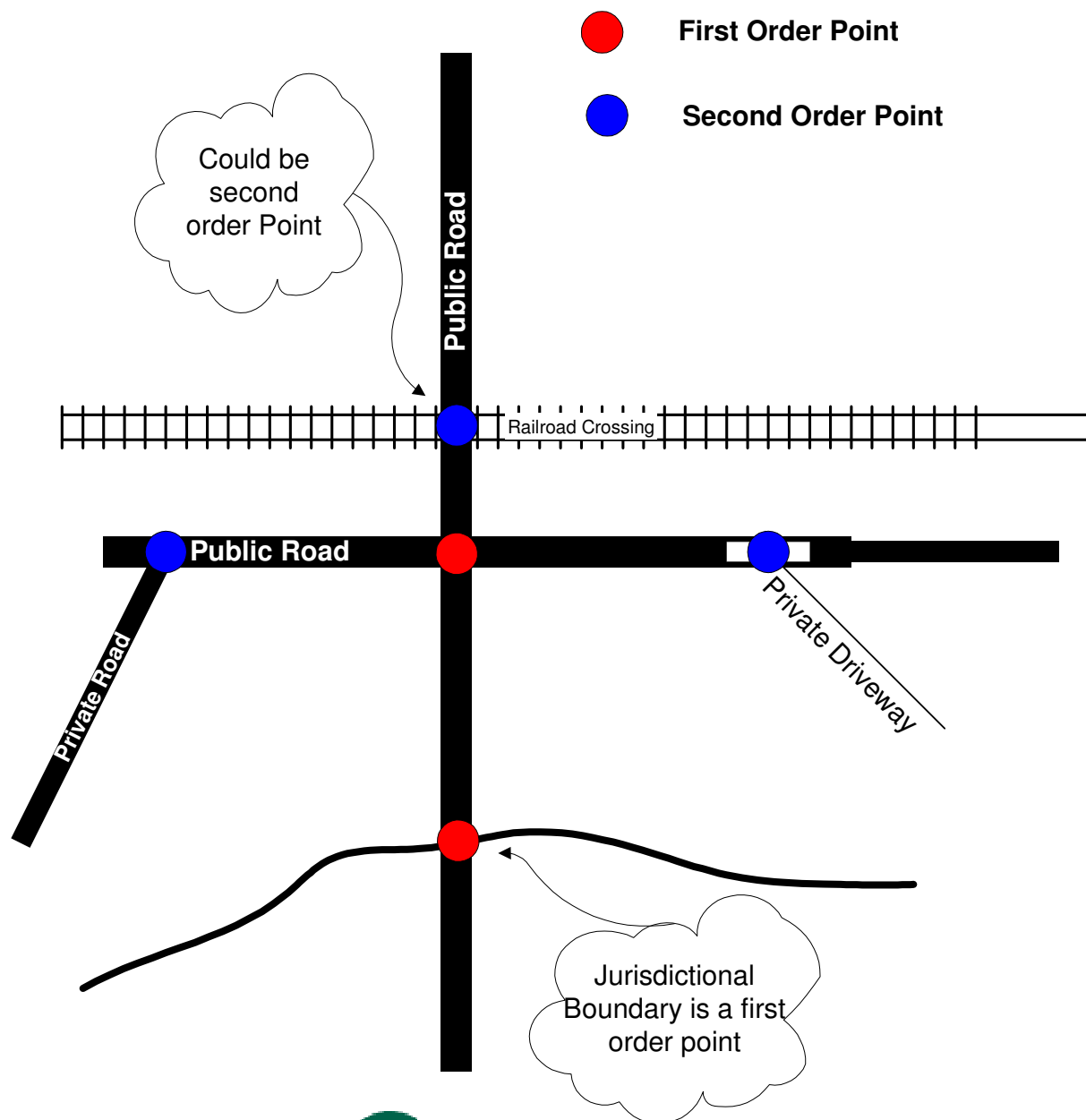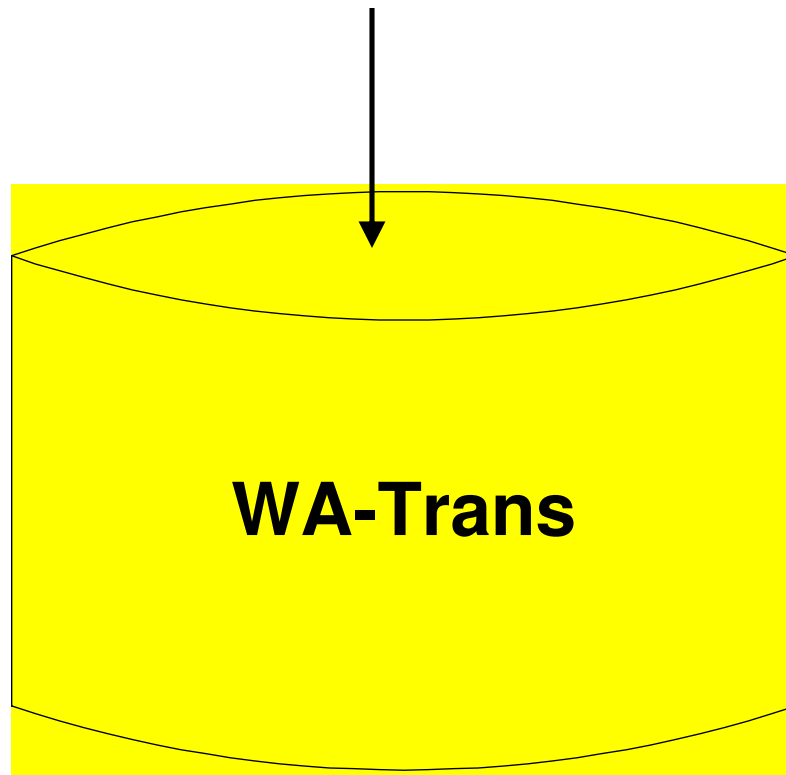
WA-Trans Staging Database

Staging Data
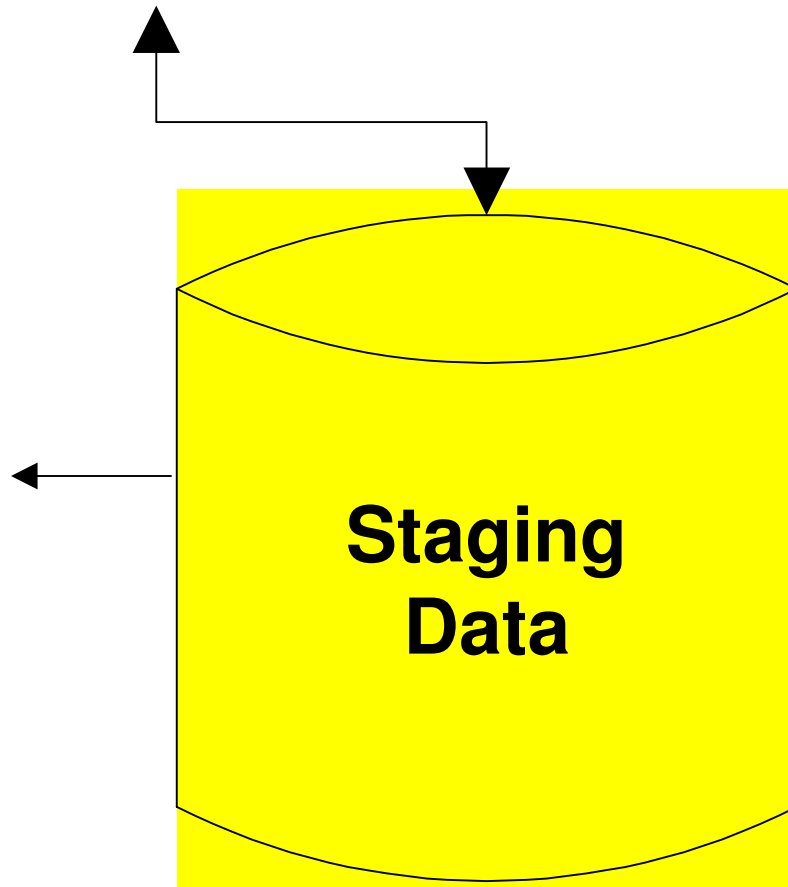
- A geo-database with versioning,
- Where manual and automated data manipulation occurs in preparation of putting data into WA-Trans (ex. Re-segmenting of data, documenting agreement points, adding WA-Trans dates), etc.

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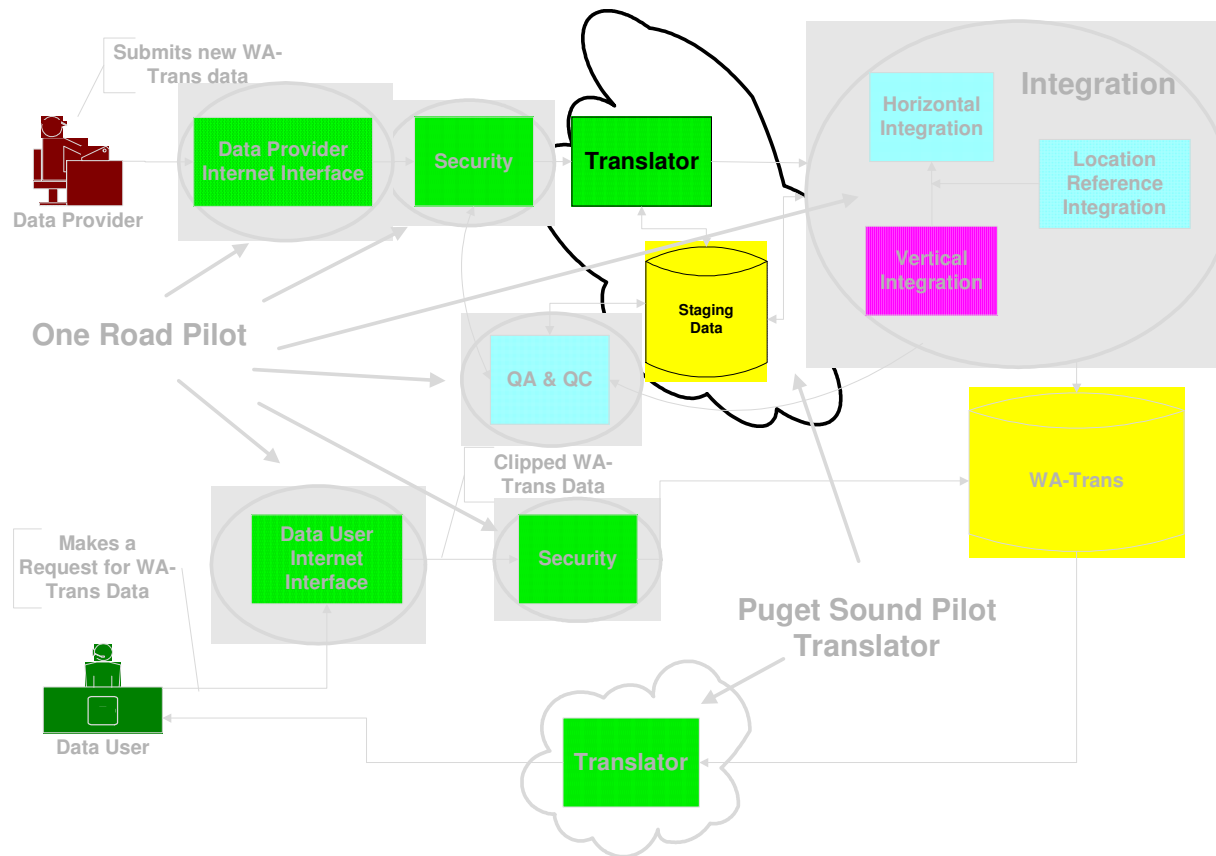
WA-Trans Database

WA-Trans

- WA-Trans will be registered with a geo-database.
- This will facilitate use with tools for spatial data work.
- SQL format is still available.

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Translator Conceptual Architecture

WA-TRANS
Partnerships Across The State

Submits new WA-Trans data

Data Provider

Data Provider Internet Interface

Security

Translator

One Road Pilot

QA & QC

Staging Data

Integration

Horizontal Integration

Location Reference Integration

Vertical Integration

Clipped WA-Trans Data

WA-Trans

Makes a Request for WA-Trans Data

Data User Internet Interface

Security

Data User

Puget Sound Pilot Translator

Translator

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Data Provider Translation Process Concept for Puget Sound Pilot

Crosswalk Data to WA-Trans

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Translate to WA-Trans

→ WA-Trans Personal .mdb
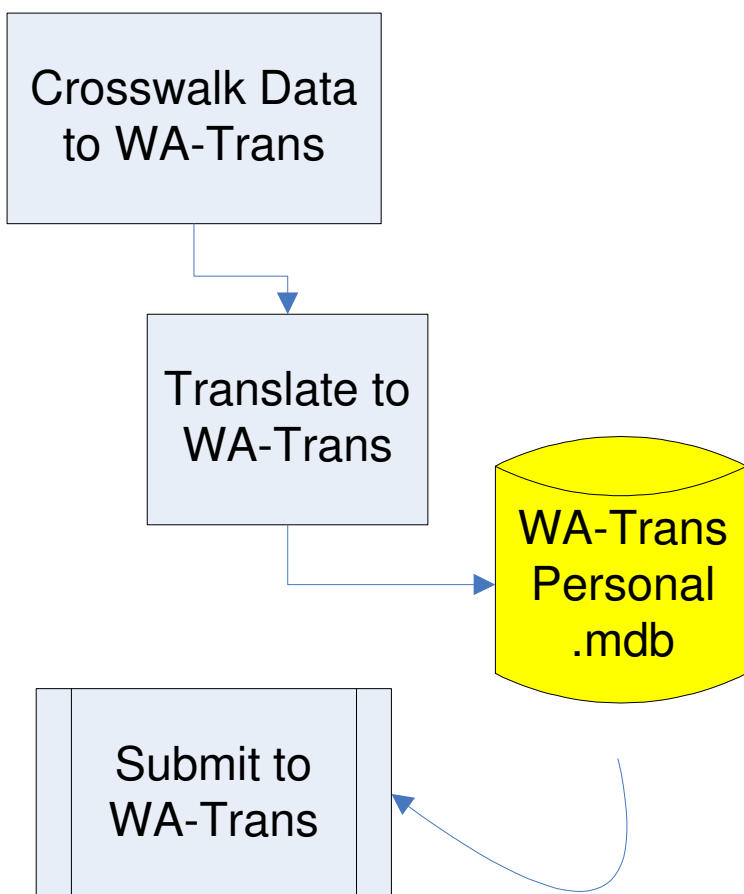
Submit to WA-Trans

- Fill out the WA-Trans Crosswalk Spreadsheet,
- Download the WA-Trans personal database,
- Translate provider data into the WA-Trans Personal Database,
- Fill out the WA-Trans submittal form,
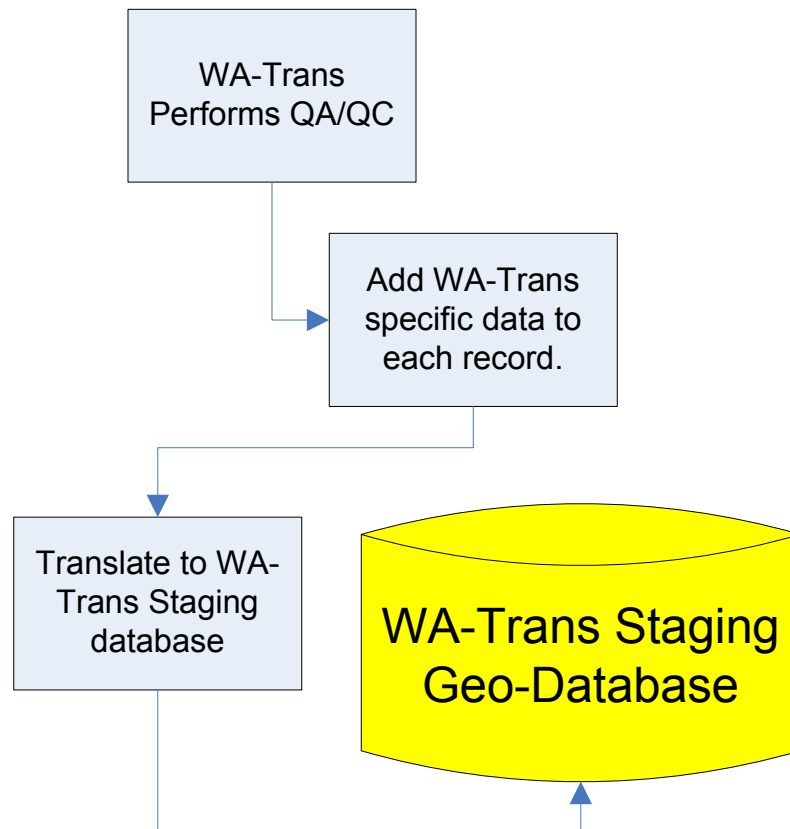- Upload database, submittal form and metadata file.

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Translation Illustration

WA-Tran Translation Process Concept for Puget Sound Pilot

WA-Trans
Performs QA/QC

Add WA-Trans
specific data to
each record.

Translate to WA-
Trans Staging
database

**WA-Trans Staging
Geo-Database**

- WA-Trans performs QA/QC on providers submitted data within the submitted personal database.

- Add WA Trans specific attributes to providers records.

- Translate providers submitted data to WA-Trans Staging database.

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Puget Sound Pilot Phase I and II
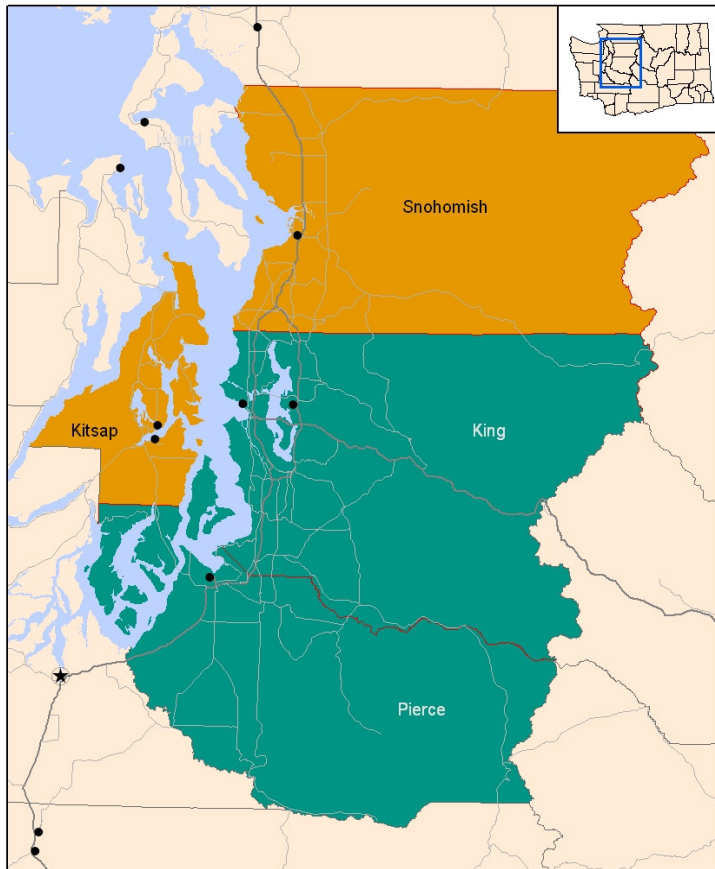
USGS CAP Funding Phase I

Proposed Funding Phase II

Puget Sound Pilot Milestones

- Agreement Points have been defined between Pierce and King County,

- Purchased a copy of the ESRI Data Interoperability Extension,

- Developed a Statement of Work with ESRI for training and support during the pilot,

- Completed a data model review with ESRI,

- Completed training (for King and Pierce Counties, Puget Sound Regional Council and WSDOT on the Data Interoperability Extension.

Puget Sound Pilot Milestones

- Michael attended two days training on FME (the Data Interoperability Extension is based on FME).

- Completed design and implementation of simplified dataset for data providers to work with,

- Made sure data providers have access to WSDOT environment for translation during the pilot,

- Developed the WA-Trans side of the translator,

- Implemented the WA-Trans database and tested it with WSDOT and GDT data.

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Puget Sound Pilot
(Agreement Points)
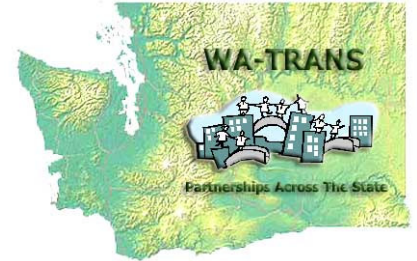
- Pierce County has been leading the effort to establish agreement points, first with King County (very nearly complete) and then with all surrounding counties.

- Letters were written about agreement points to all surrounding counties explaining agreement points and soliciting involvement in the process.

- Two major issues have been highlighted:

  - Boundary layer issues (discussed at the last meeting),

  - King County maps driveways, Pierce does not. Second order points will facilitate that.

- We are beginning work on the process to document these points in WA-Trans.

Puget Sound Pilot Next Steps . . .
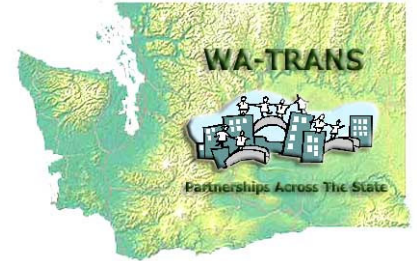
- Complete data user side of translation process,
- Complete translator help files,
- Get King and Pierce County data translated in,
- Work with Puget Sound Regional Council to document QA/QC processes,
- Provide data to The National Map,
- Provide data to other groups wanting to test the results,
- Begin process to put WSDOT data into WA-Trans,
- Find funding for Phase II.

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One Road Pilot
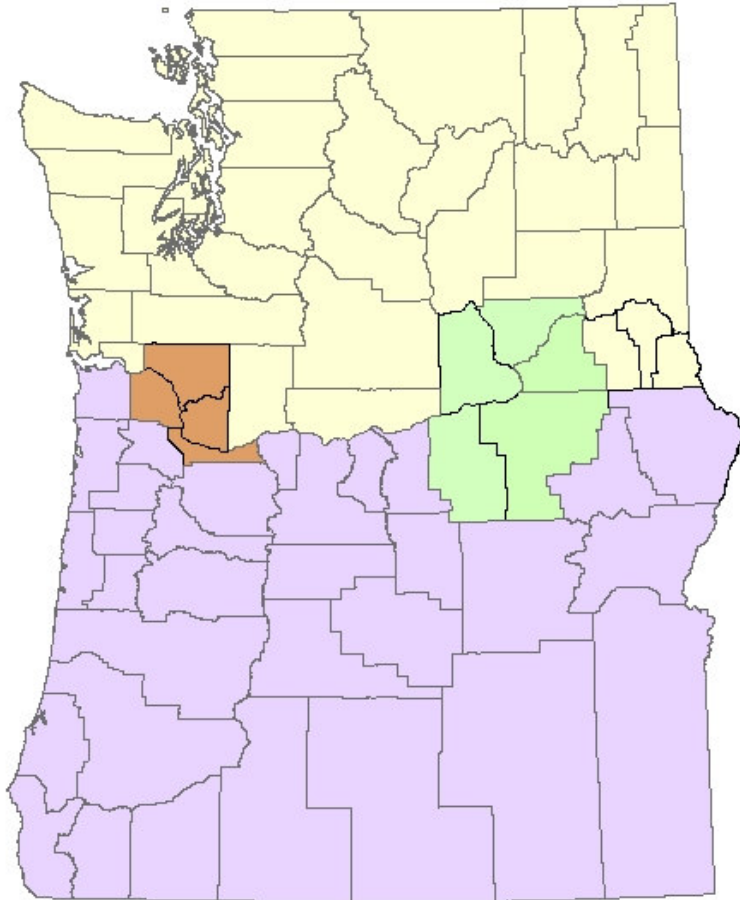
Phase I & II

Benton, Franklin and Walla Walla Counties in WA and Morrow and Umatilla Counties in OR

Phase III & IV

Clark and Cowlitz Counties in WA and Columbia and Multnomah Counties in OR

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One Road Milestones

- Project Charter has been completed.
- Nebraska, Oregon, Ohio and Tennessee DOTs have committed to joining. California is considering involvement.
- A solicitation for July, 2006 has been posted recently, looking for new partners.
- Annual Advisory Team Meeting has been scheduled for directly after the GIS-T Conference held in Ohio next week.

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One Road Activities

- We are working to develop agreements with universities for some of this work. WSU has expressed interest in providing GIS work.

- We are also trying to figure out how private partnerships would work. Interest has been expressed by several companies.

- We are documenting processes which will lead to requirements for integration and user interfaces.

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Phase I and II (July '05 – June '07)

- Continue to work on translators and how easily additional software can be interfaced with them,
- Develop requirements for the two user interfaces,
- Develop requirements for Integration,
- Look at existing software solutions and research,
- Develop integration software (iteratively).
- Test the results of the software with various pilots.
- We will do as much as we have funding and resources to do.

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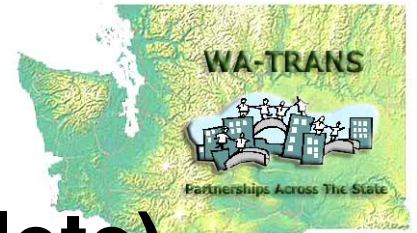
Phase III and IV (July '07 – Complete)

- Complete integration software.
- Develop requirements for QA/QC software,
- Research existing solutions for QA/QC software,
- Develop QA/QC software.
- Begin looking at security required in some detail and public/private data issues.
- Security will likely be purchased or part of existing systems.
- Develop requirements for linear referencing integration and follow the rest of the process out.

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Justifying Costs of WA-Trans

- FGDC and GITA sponsored a case study on return on investment for a multi-agency GIS project. WA-Trans was selected for this study. They came in mid-November and trained and worked with us to determine business case for transportation planning and WA-Trans.

- The study was only focused on Transportation Planning. We have only collected a small percentage of the business benefits so far (and these only in WSDOT).

WA-Trans ROI Process

- Within WSDOT we still need to look at:
  - TDO (Roadway & Travel Analysis Branches),
  - Freight Strategies and Policies,
  - Planning Office,
  - Cartography and GIS (data collected),
  - Incident Response,
  - Public Transportation,
  - Highways and local programs,
  - Others not yet identified.

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WA-Trans ROI Process

- We plan to perform a strategic analysis that quantifies benefits outside WSDOT as well. We have several candidates identified:
  - MPOs and RTPOs
  - Dept. of Fish and Wildlife,
  - Revenue,
  - Corrections,
  - Social & Health Services
  - Military,
  - Utilities and Transportation Commission,
  - Various Local Governments. . .

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WA-Trans ROI Results (so far)

- Assuming a very conservative development schedule we were able to show enough benefits to **recoup half our costs** over a 20 year period with just what we have collected so far.

- Assumed a development schedule of implementation in mid-2010.

- Assumed small piecemeal funding until all pilots complete and minimal overlap between them.

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Announcements

- WA-URISA is May 8, 9, 10 in Tacoma
  - Looking for one more presentation on a transportation related subject,
  - 20 – 25 minutes long with 5 to 10 minutes for discussion,
  - Contact Tami if you are interested in presenting.

- Washington State Ortho-imagery Program is considering new resolution to better meet statewide demands.

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Next Meeting

- September 14, 2006
- 10 a.m. - noon
  - Transportation Building, Room 2F-22
  - 310 Maple Park SE
  - Olympia, WA
- Video Conferencing at DOT Headquarters Building or by arrangement

Contact Information:

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